

BARG Newsletter

Ballarat Amateur Radio Group Inc. #6953T
September 2023 Monthly Newsletter

Next Meeting AGM BARG inc
11:00am, Saturday 28th October 2023
At the Airport - All Welcome



Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

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Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.grz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Colin Consiglio VK3NCC
Secretary	Mal White VK3OAK	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Lachlan Macdonald VK3ALM
Ordinary Member	Ian Fairweather VK3YFD		

New Dates and Times of BARG General Meetings



The meeting dates for the next 2 months still remain Saturdays at 11.00am are as follows:

Note: No General Meeting for September 2023

The next meeting is
Annual General Meeting. Saturday 28th of October 2023.
11:00am

Construction Sessions/Days

Are on the next two dates:

Saturday October 7th at 1pm

Saturday November 4th at 1pm





President's Report September 2023



Yep, I missed last month's President's Report. I did not have much to write about last month anyway and missed the deadline for it.

All members should now have been transferred over to groups.io and chatter has been created so Tom can now keep up the Grandad Jokes.

There is no General meeting this month. It was decided at Committee that we would cancel this month's meeting as to start I am unable to make it with it being AFL Grand Final day and I must spend a few hours from 11 am on Saturday the 30th in a radio studio looking after the broadcast. There are also a few who have opted in on the walk-up Mt William the day before, other committee members are unable to be there on the day as well.

George Fowler Auction was last weekend and thanks to those who assisted with the BBQ and also to Craig VK3KG and Peter VK3PWG for being the auctioneers.

AGM is on the 28th of October, Nomination forms should be in this newsletter.

Preparations for Hamvention are underway, by the time the newsletter comes out the table booking form and details should be up on the website. Make sure before booking a table to read the main Hamvention page as we have had to apply some rules for booking tables and there are also rules around trading before the start time of 10am.

The Echolink node on VK3RWA is sort of working a test was done of it the other night with a few of us who knew about it listening. Once it was switched back to RWA we had some issues with the News broadcast again. Work on it continues and the way things are going may require a large hammer.

In some other news the Weston meter I wrote about in my last report has become a shelf ornament for the time being the battery leak had caused some damage to the bridge rectifier in it, so I need to have look at creating a new rectifier that fits inside it or find a tiny one that is rated correctly. In what has become known as Repair Corner is now a VTVM that I picked up at the George Fowler Auction and it seems I have all the luck (not) this one also had a leaky battery, so out with the vinegar and isopropyl alcohol and clean it all up and inspect the damage.

That's it for this month the Newsletter editor is hounding me for the report.

73's Ben VK3NRD.



George Fowler Auction

The George Fowler Auction was well attended on the 17th of September, the club would like to thank all who attended, bought, sold, and ran the day.



Pictures Compliments of Mal, VK3OAK and Peter, VK3HEW

A Basic 40m 'Phone Transmitter

Contributor Garry VK3DGE

This circuit is of an unknown origin but says it all.

Originally described for 160m, the tank circuit had to be adapted. Other circuits were tried, the problem being inadequate drive from the Xtal oscillator.

Difficulty was also had with instability in the triode of the speech amplifier. Careful wiring fixed that.

Switching is shown as done, but that is obviously up to the builder.

PARTS:

These are well known to all who have wrecked old TV's and radios.

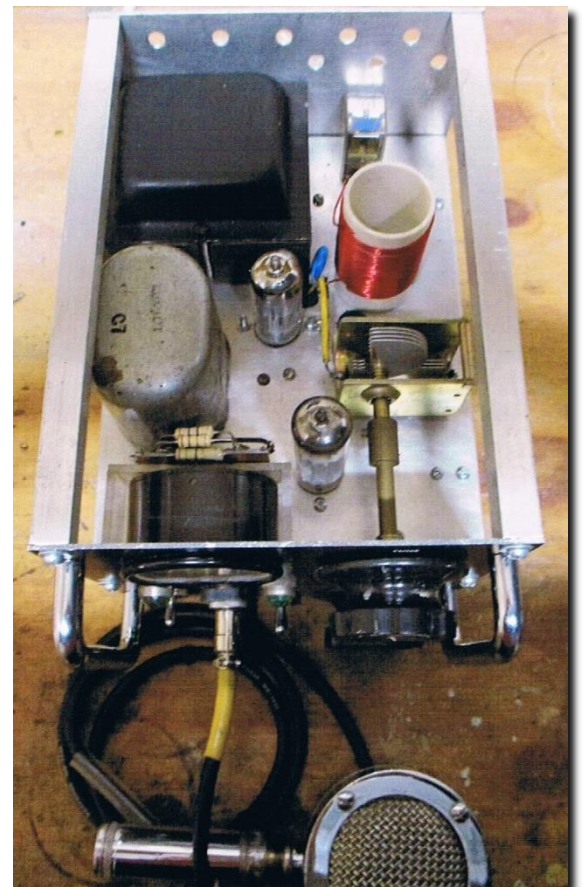
The only unusual part is the centre-tapped transformer used for modulation. The one used was from a valve receiver or amplifier using push-pull output. As the secondary is not connected, a simple centre-tapped transformer should do the job.

PERFORMANCE:

Output as been measured on the CRO at 2½ watts and by all accounts the audio is good. Daytime contacts have regularly been to East Gippsland, beyond Adelaide and southern NSW. No night contacts have been tried.

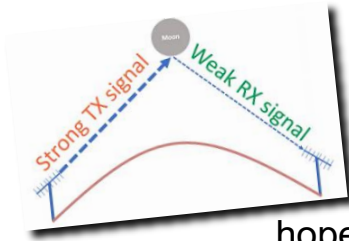
The antenna is a dipole at about 25 feet.

It would be easy to add CW, PTT, VXO or afterburner, however this would defeat the purpose of the design. The idea to build a useable 'phone transmitter as simply as possible using parts on hand.



73, Garry VK3DGE

VHF and Above for September 2023



With the better weather on the way there has been some good openings on the SSB part of the 2m band where some VK2s have successfully worked into New Zealand which I don't believe has happened for the past couple of years. Let's hope this trend continues.

This month I would like to share some of my experiences on 2m with EME propagation. There are so many variables it can be frustrating at times a lot of which is due to the individual setup a station may have.

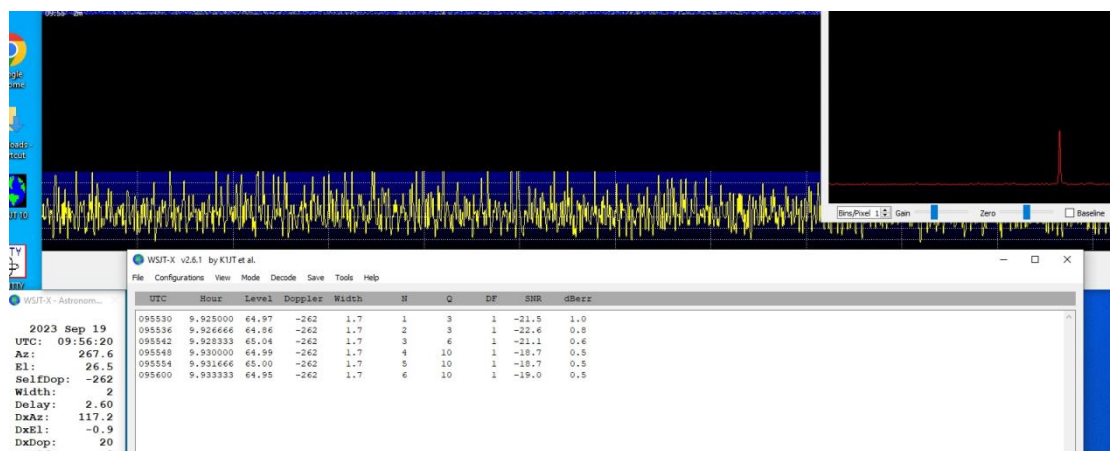
Ideally you need 4 Yagi's with dual polarity, a good preamp, and some grunt sufficient to make the journey. In my case I don't have dual polarity which can be very frustrating at times as the signal although being transmitted in one polarity can arrive the other end in the opposite polarity which results in one way propagation. On the 2m band this can change quite quickly at times and at other times it may not change resulting in no contact being made unless the other station has the ability to make the change.

There is software available to tell you what the polarity of the signal is however I don't use that. In addition, the distance from Earth to the Moon and other factors also come into play.

Recently I was attempting to QSO with a station in Italy and not having any success however a station in Russia was giving me quite good reports. This prompted me to do some echo testing to see what sort of signal I was seeing being returned to my QTH. Within the WSJT software there is the facility to perform these tests which can be used to check your stations performance and also the pointing you your antenna. Below are the results of some echo testing at my QTH which given the installation and power was quite acceptable.



Typically, signals are decoded at levels down to -27dB without difficulty but weaker than that they can become marginal. I hope this information is of interest to those that read it and if I can assist in any way to those interested, please let me know.



Cheers, Ian VK3AXH

Lessons From The Tower

Part of QST August Review by Craig VK3KG, has come to the attention of a couple of our local operators.

Lesson 1;

P9 Terrible Tower Lessons. To read as it concerns an amateur Ben DL6RAI who became a SK due to a tower accident. While many in Australia may not have a tower to climb it still bears stopping and making a plan for any activity that concerns some working at heights or just in a dangerous situation where some one's safety is involved. IT CAN HAPPEN TO YOU... It reminds me of the maxim I learnt in the army some time ago and that was called the SIX P's.

The six P's are: Prior Planning Prevents Piss Poor Performance. So, when intending to climb a tower or go rock climbing just PREPARE yourself and gather all tools and other items needed [or maybe just thought may be needed] and have them ready. Of course, the main thing you need to do is have the correct climbing gear and include ropes and safety harnesses. You should always have a capable assistant with you who may have to climb with you or just be the Gaffer on the ground.

Lesson 2; Beware of me(n)tal fatigue.

The tower came down with a slow grinding lurch,
the birds circled slowly as they lost their perch.
Beams and wire, spread on the block.

As repairs were made and things reset,
The birds circled slowly wanting to rest.
John and Cliff worked there in the sun,
the problems they tackled were just about done.

They wound the tower up into the sky,
Stacked with beams and all of that wire.
The rotator was next to be put to the test,
But the damn thing was pointing North and not West.

To make this thing work, we must lower it down,
All the darn way till it touches the ground.
So over it came once more with a lurch,
Once again, the damn birds lost their perch.

We loosened the nuts and all of those things,
That we had just fixed after all those high winds.
So once again it started to rise.
Elements filling the now clear blue skies.

That should do it, it's halfway up,
Now we can adjust the rotator and stuff.
BUT there was a bang, a sort of a roar,
I quickly looked up to see all hit the floor.
The beam had struck deep in the lawn,
John was looking somewhat forlorn.
There was blood on his nose and sweat on his brow,
I think this blighter tried eating my tower.

If you have problems with your tower or mast,
Think of the problems I've had in the past.
If John is helping, make sure he's had lunch,
On my tower I caught John having a munch.
With kind permission for publication.
From Cliff VK3CB

The twisted galvanised wire broke on winding up. It was not renewed!

Lesson 3; Replace such when doing renovations on towers.

This was a long time ago; consider stainless, but this can also break on the stress of coming off a pulley – It's happened to me!! The Wacky Doc... VK3CFH

Some Early Memories of VK3FIVE

Contributor: Rick VK3FIVE

Reading Steve's Newsletter article triggered a whole lot of memories for me.

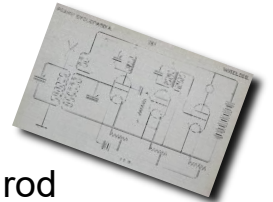
I grew up at Grange S.A., living on the Esplanade with just a flat sand dune between our front gate and the sea, so I spent endless hours swimming and paddling surfboards.

Although there was plenty of water in the Gulf, and great for sailing, there was rarely any surfable swell to speak of, so I too went surfing at Port Elliot in the 60's. Other popular spots too, such as Waitpinga along the coast, and Sellick's, Aldinga, and Moana – now pretty much a suburb of Adelaide.



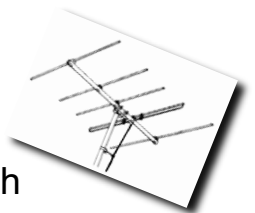
In the 50's I remember my dad was occasionally active with Amateur Radio, using a small transceiver he had built. It had a folded aluminium chassis the size of a small shoe box.

I did keep it for a long time, but must have dived it, however I remember the small vacuum tube valves, paper capacitors and ceramic resistors in the circuitry.



The Yagi antenna was constructed from brass tube and brass rod elements using the nylon syringe bodies of the time as insulators, and I assume it was FM, as it was only as big as what would fit in a wheelbarrow.

I think the antenna was fed using ribbon. It was horizontally polarized and clamped to a length of waterpipe that Dad had slid down the lounge chimney. The settee was placed with its back across the fireplace, with the radio sitting up on the back, and he could reach in to grasp and turn the pipe for antenna direction. This was only from North around to South via East, as via West was all sea.



I would hear him calling CQ CQ and I was pretty sure he was only talking to other operators a few suburbs away.

I doubt very much that he knew what an SWR bridge was, and certainly had no way of measuring output. I think it had a VFO, but I suspect that all the required design work was mathematical. You could have soldered a set of gutters, given the size of the electric soldering iron he used.



Some time back I did a search for his VK5 callsign, but had no success, so it is quite possible he was not licensed.

He also built an audio amplifier using the same paper type of capacitors and ceramic resistors, but some much larger valves.

The pressed steel chassis was the size of a small suitcase, yet the unit's output was probably only about 10 watts RMS. It had a rather large iron core transformer and an assortment of small and large valves, one or two of which had a wire to the top, and a very nasty wire too, as I found out by accidentally touching one.

73 Rick... VK3FIVE

Antenna Switcher and PEP Power/SWR Meter

Contributed by Peter VK3APW



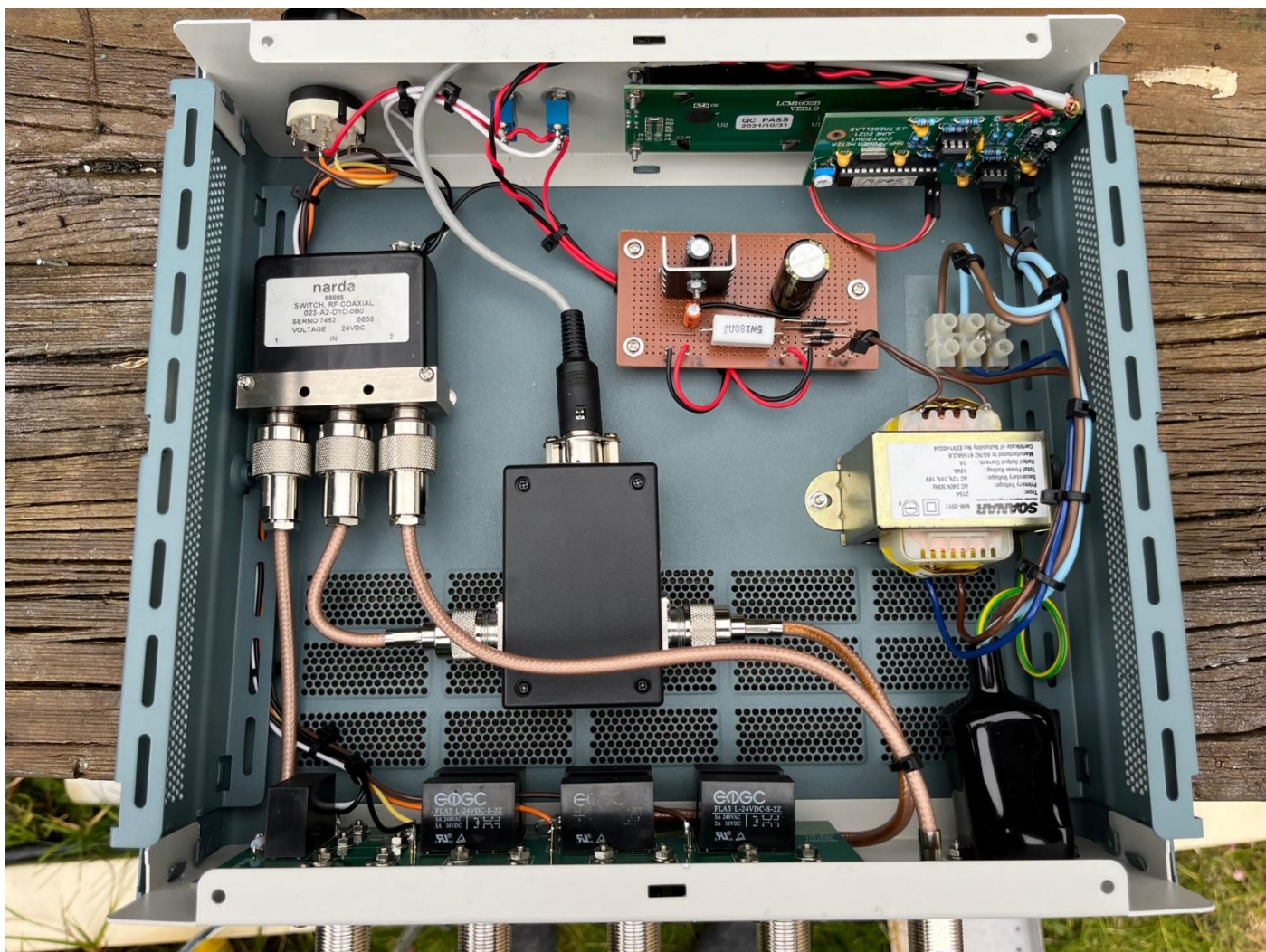
Jim VK5JST has published quite a good few projects in our AR magazine, over the years. I combined two such projects to realize a HF Antenna Switch, with built in, digital PEP Power/SWR meter. Barry VK5BW was also instrumental in the Power meter project's success.

The Antenna Switch was published in AR #5, 2020 and the Digital PEP/SWR meter in #6, 2021. <http://www.vk5jst.com/SPswr.htm> The original Antenna Switch project sported a bridge with an analogue meter. Once I saw the Digital meter project, I knew what I wanted to.

The Adelaide Hills Amateur Radio Society (AHARS) made kits available for the Power meter, at the quite modest price, of \$48 plus postage. (Sadly, now sold out) This kit, if the instructions are followed closely, will give you readings that will track, with a Bird 4410. Amazing considering there is no calibration required. Go try and find just one Bird HF slug for that money.



To build the antenna switch, Jim kindly made a PCB available to me, as part of a short production batch he ordered. I added in a coax relay, to have a Dummy load option, and replaced the LCD with a bigger size screen. The results shown in the attached photos.



So, what does this contraption do?

It will switch one of three radios, to one of two antennas, or into a dummy load for testing.

It will handle the full legal limit, comfortably.

It provides sufficient isolation between rigs, so as not to take out the front ends, of the other rigs, when one transmits.

In addition, when powered down, all rigs are disconnected from the antennas, and grounded.

The power/vswr meter is PEP reading, with a 500W range.

Construction was not difficult, apart from getting all those holes, to mount the SO259s, in a straight line. The power supply is 24V to the relay coils, and 12V regulated for the power meter.

Front panel is yet to be labelled; in case I think of something that should be added. Very happy with the results so far.

Cheers Peter VK3APW

EMDRC Car Boot Sale – Date Amendment



SPRING 2023 EMDRC Car Boot Sale

Sunday 22nd October 2023 10am-1pm
at the EMDRC Clubrooms.

13a Mc Cubbin St. Burwood East

Free entry for buyers and 'tyre-kickers'

**Note: No General Meeting for
September 2023**

**The next meeting is
Annual General Meeting. Saturday 28th
of October 2023. 11:00am**

Victorian Cuboree 2023 VK3CUB



Scout Radio Station **VK3CUB** at the Victorian Cuboree 2023

The Victorian Cuboree will run between Sep 25, 2023 through to Sep 29, 2023.

During this period a Scout Amateur Radio Station will be 'on air'

Sep 25 to Sep 27 between ~1930 – 2130 hours (0930 – 1130 UTC).

(and maybe ~1000 – 1400 (0000 – 0400 UTC) on Sep 27)

Our call sign is **VK3CUB** – Victor Kilo Three Charlie Uniform Bravo

We invite Amateurs to 'have a chat' with our Cub Scouts. The age range of Cubs is 7 - 11 years old, and we expect many of them to be 'mic-shy' at first.

Please encourage them, and help make the experience rewarding for them.

(It will be good practice for Jamboree on the Air (JOTA) on Oct 14-15.)

Operating Frequency

We will be operating at 7.105 MHz, but will QSY up and down as needed.

And we will listen out on the ScoutNet repeater

VK3RSA @ Emerald(439.650 MHz 91.5 CTCSS).

N.B. this repeater is linked to these as well:

VK3RSB @ Mt St Leonard (439.55 MHz 91.5 CTCSS)

VK3RAJ @ Upwey (439.75 MHz 91.5 CTCSS)

VK3RSU @ Mt View (439.925 MHz 91.5 CTCSS)

73's, Murray Taylor, Cub Scout Commissioner, Melbourne Region

VK3MJT

Message to Amateur Radio Club Secretaries

Please forward this information to your Club Members



2023 Annual VKFF National Get Together



2023 ANNUAL VKFF NATIONAL GET TOGETHER

INTRODUCING THE INAUGURAL VKFF NATIONAL GET TOGETHER.

FRIDAY 27TH, SATURDAY 28TH & SUNDAY 29TH OCTOBER 2023

AT RENMARK IN SOUTH AUSTRALIA.

THE EVENT WILL BE HELD AT THE HOTEL RENMARK, MURRAY AVENUE, RENMARK.

THE EVENT INCLUDES A FRIDAY EVENING DINNER. GUEST SPEAKERS & DISPLAYS ON VKFF/WWFF DURING THE DAY ON SATURDAY. ON SATURDAY EVENING THERE WILL BE A DINNER FUNCTION AT THE HOTEL RENMARK. A SUNDAY MORNING BREAKFAST WILL BE HELD. THIS WILL BE FOLLOWED BY NUMEROUS PARK ACTIVATIONS ON SUNDAY.

MORE INFORMATION INCLUDING TIMES/BOOKINGS CAN BE FOUND ON THE WWFF AUSTRALIA WEBSITE AT.....

<https://www.wwffaustralia.com/annual-vkff-national-get-together.html>



**DON'T LEAVE THIS UNTIL THE LAST MINUTE.
NUMBERS ARE LIMITED TO ABOUT 45 PEOPLE.**

Come Along to the BARG Coffee Mornings

Excellent turnout for this weekly club activity this month.



Every Thursday at 10 am
Food Seduction on Doveton
524 Doveton St Nth Soldiers Hill
(The old Gove Bike Shop)

WANTED;

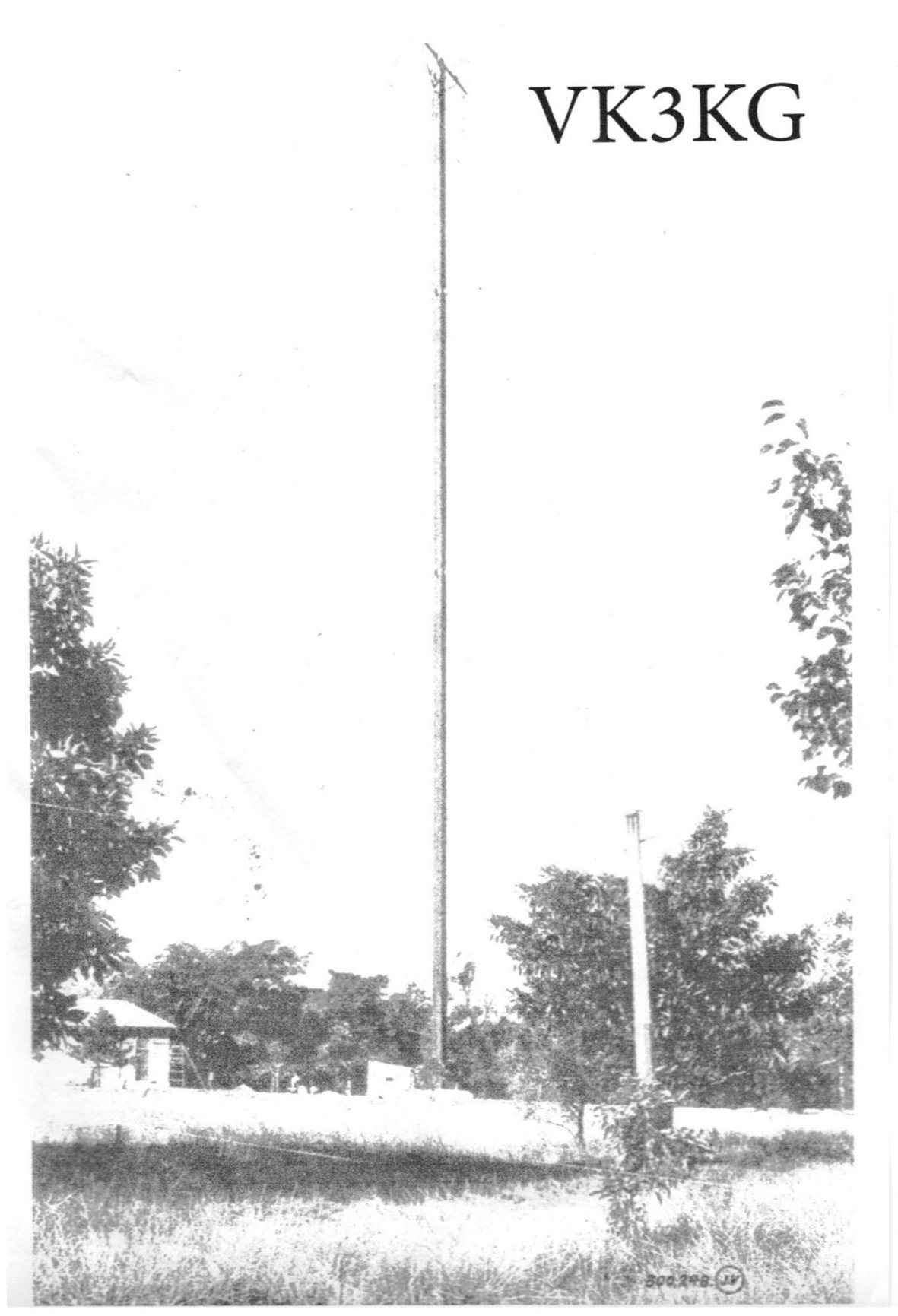
Loan or Purchase of a magnetic antenna base.

Details please to Bob VK3BNC



**There is a big sale on at the LEGO store;
People are lined up for blocks!!!**

Image Received From Craig VK3KG



(Should someone make a film quote here; Tell him he's dreamin' , "The Castle") VK3DMK

BARG inc ARE DOING IT AGAIN..



SAUSAGE SIZZLE

Sunday 24th September 2023

Contact Mal VK3OAK if you can help.....



Are you interested in becoming an amateur radio operator?

If you are interested in WIA membership, the Amateur Radio Magazine and what is going on in the amateur radio world, then check out the site at;

<https://www.wia.org.au/>

THIS MONTH, THANKS TO EVERYONE,
ANOTHER FINE SELECTION OF
ARTICLES FOR THE NEWSLETTER.

IF YOU THINK YOU CAN WRITE OR
CONTRIBUTE SOME PICTURES OF CLUB
OR YOUR AMATEUR RADIO ACTIVITIES
FEEL FREE TO CONTACT ME.

73 TOM VK3DMK.

tomvk3dmk@gmail.com

Don't Forget the 100 years of Amateur Radio.

This BARG activity has been moderately successful.

Just under half a century of awards have been issued so far.

Since 2023 is the centenary year. The opportunity to claim an award will remain open until the end of December.

Check the BARG Webpage if you are interested.



Magazine Reviews

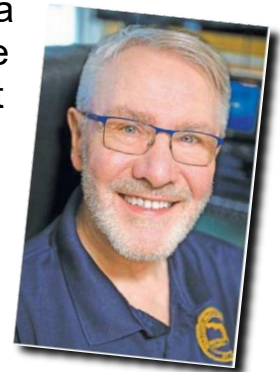
QST September 2023 Review

Review by Craig VK3KG



P9. Second Century. Participating in Science Using data of various things and making predictions for future. Solar cycle 25, Weather, use reverse Beacon data, etc. see www.arrl.org/here-to-there-radio-wave-propagation seen the latest on space weather science studies. Operate Participate Investigate and Analyze and report.

P13. Member spotlight. N4AN, Dr Dirk Basting. His father was a medical but didn't follow him into medicine. He started like many with a battery, some hookup wire and a light bulb and it lit up when connected. He tried increasing the wire length to see if it would still work. Moving around in his interests he also tried to make TNT at home!! That didn't work fortunately but he went to Uni and studied Chemistry in Marburg Germany. Here he experienced a laboratory failure [called a facial explosion using an iodine-based compound. He and his lab partner were then directed by their professor to design and build a Nitrogen Laser from bottom up. This led the two [Bernd Steyer] to develop and patent one in a smaller version and they market that today from a start in 1972. The laser is used for photoablation and from use in ophthalmologic surgery and developed the LASIK tool. Now used in the Silicon Valley to manufacture digital displays and Integrated circuits.

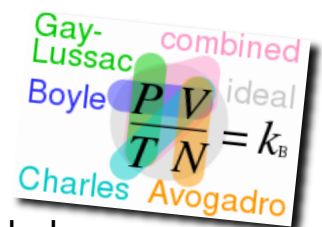


Now retired in 2003 with sale of the company he has taken his license in 2008 and from Fort Lauderdale has a nice antenna farm on several bands even though a local ordinance was aimed against amateurs and their aerials.

P22. An End Fed Half wave antenna. It may only be an advertising page but arrrl.org/shop Item no 0612 priced at US\$79.95 am sure we can make them here cheaper.

P24 Letters. From members and various topics and replies.

P30 BOLTZMAN's constant, Understanding it. Is it $k=1.380649 \times 10^{-23} \text{ J/K}$ worth and why the hell would amateurs need to know that. Almost as bad as learning pi.! However early scientists did a lot of "fiddling" and discovered that some calculations provided a number that helped calculate certain values and these numbers are given a symbol and thus a value to be used. Ludwig Boltzmann link between energy and probability which when applied to other researchers and Max Plank who was a theoretical physics, and he produced the law we now know as Planck's law {1901} to the BLACK BODY RADIATION calculation.



See <https://physics.nist.gov/cuu/Constants/index.html> Now where is this of use to amateurs.?? Consider the calibrations of the S meter and the talking of

Noise floor, bandwidth of a given space [channel] and throw in a temperature scale named a KELVIN degree and it all starts looking a bit of Mumbo Jumbo doesn't it.? However, it's very important to communicators and especially with new techniques like digital FT8 {and remember CW is digital} the ability to have a setup that will hear the smallest of small signals amongst the noise floor is very important.

P33 Digital Voice the easy way. FreeDV software and no special hardware as in the past just a rig interface [plugs/sockets]. See an overview at www.arrl.org/qst-in-depth Run on the HF bands through your SSB mode. Noise is no longer a problem HOWEVER you will encounter **quantization** noise, and this will introduce distortion in the audio. You can access free DV for Windows, Linux and MacOS. See www.freedv.org Can also see what your signal is like by www.pskreporter.info/pskmap

P39 REVIEW. Yaesu FTM-200DR C4FM/FM mobile. 50Watts VHF/UHF.

P45 REVIEW. MFJ-419 CW Elmer. Costing US\$170 from MFJ here is a small combination unit to practice learning CW, send CW with an attached [straight] key but allows an external one also.

Speed adjustment 5-40wpm and can pre-feed in selected words for learning. Versatile device if you want to practice learning the code at home or in a train or car.

P48 REVIEW. Taidacent RF Power meter See www.amazon.com for this handheld meter USD\$60 and it claims to 1,000MHz at power level of 1nW to 1 mW [-50 to +0dBm] with increments of 0.1dBm resulting. Consisting of two separate PCB's which plug together the author describes how easy it was to combine them along with a 9V battery into a Serpac H-67 9V plastic case [Mouser 635H-679V-B] and a SMA to N connector. Using spacers from the scratch box to allow fitting the boards into the plastic case. Rated at 12V DC it runs well from the 9V battery and draws 45mA using the two line display and the MENU allows setting power levels of 10MWatts [100dBm.]

P52 Ask Dave. Answers about metal grounding around end fed half wave antennas, and the mains supply ground. See <https://youtu.be.Luy8XP8Q390> The Grey line and 160M propagation in Winter and Summer. Can use amateur antennas for general SW listening, and cleanup any copper surface prior to soldering and ignore [or observe] the effect of connections to a copper pipe J pole instead of a coaxial socket. No harm with copper patina.

P54 Hints & Hacks. Old TenTech 277 tuner repairs and use the balcony rail to load up as antenna on HF. May need a 9:1 UNUN with 100Watts. Typically using 100W and the IC7610. Visit www.arrl.org/rf-exposure to see compliance with local laws. Make your



phone use Morse ring tones. Finally, do you have difficulty drilling holes in circular pipes. {metal or PVC}

P56 Reenactment of the Pony Express Trail of 1860 – 1861. And amateur radio tags along.

P59 Ham Radio from a Fire tower Lookout. www.firelookout.org and www.sota.uk can combine from some of the best bush sites ever Ernie K6KKM is a volunteer fire watcher and has some photos taken from his “work” places. Great for amateur radio.



P62 Portable operation and a novel way to support a Squid pole or Hamstick antenna without requiring a pack horse supply.

Uses a one metre length of PVC pipe [50 or 75 mm] depending on the base size of the stick. Some 2.5mm nylon rope, four guy pegs and some ratcheting guys and ready to use. Test at home before going in field but you may decide this method is good idea for some poles at home QTH instead. The author has a 31 foot telescoping pole for field use. Advantage of this device you can drop the pole vertically and leave it still hooked up and guyed while adjusting the top wire or even some loading coils. With just one it's good for a sloper or end fed antenna.



P64 Simulated Emergency test.

P65 IARU Admin Council Met in Germany. 25/26 June. Received reports concerning agenda item 9.1b. the Radionavigation Satellite Service [RNSS] and the 23cm band. Nominations have been received for the IARU Michael J Owen, VK3KI, Memorial Award and the IARU Diamond Award. Await this space to see who succeeds.

P68 Emergency Preparations for the 2024 Total Solar Eclipse. Due next year on 8th April 2024 will cross over North America, passing over Mexico US and Canada.” The effect further west in the Pacific isn't detailed but the last one was 21 Aug 2017 caused totality and played havoc with communications and power services, requiring the assistance of Emergency services across many public areas. Follow this link if interested to learn more about what amateurs know and are doing in area of studying the effect on the ionosphere during partial or full eclipses. www.hamscl.org



P76 High school students thrive on Ham radio curriculum. Teachers are using a multidisciplinary subject approach to radio and includes areas of organisation, admin, report writing and planning. All these cross disciplines as well as radio theory, propagation, and satellite technologies.



If only been able to access the hobby like this when I was at tech school.

P78. Media Playlist. Temporarily Offline.? Diving Deep into Ham Radio, Steve KM9G has his own U Tube channel <https://youtube.com/temporarilyoffline> And has used this very effectively to show and encourage others to “dabble a bit in technology”. See his FT8 From your ANDROID! -FT8CN <https://tinyurl.com/TO-ft8>

P80 How's DX. VP6A, 2023. Ducie Island. June 11-24 2023. 62,000 contacts.

P82 World above 50Mhz. Cycle 25 supposed dismal 2023 Sporadic E Season. Less than spectacular but June did produce some responses. See map of Nth America on 11 June.

95 QST Looking back. Oct 1973. Article. Poorman's QRP Transmatch. Chip Capacitors.

P102 Classic radio. Drakes amateur radio receivers. From the 1950's the Drake 1-A. In 1998 the last model Drake was the TR-5 SWL receiver.



Silicon Chip September 2023 Review

P10 Electronex 2023 & Australian Manufacturing Week. A review of the exhibits at the show in Melbourne this year. From electronics distributors to manufacturers of CNC and assembly machines. Local and overseas exhibitors with live demonstrations of their wares.



P18 Easy to Build Salad Bowl Speakers. A retro looking pair of speakers using IKEA salad bowls. Not only construction details but test results of the completed design.



P31 Circuit Notebook. “Huygens Beam” BFO metal detector, Updated MPPT Solar Charger, Audio Level Meter,

P36 Analog Liquid pH Meter. The theory and construction of a pH meter using an Arduino UNO. Calibration and operating.

P44 Broadcasting In Australia, 100 Years of Broadcast Radio. Broadcast radio as we know it is 100 years old and this article follows the timeline from Marconi to sealed sets to various famous radio performers and the major companies that made it happen.

P57 Coffee Grinder Timer. For the coffee connoisseurs out there, an Arduino based timer to get the perfect grind of those great beans. With various timing modes it uses an SSR to switch the power to the grinder. A digital display shows mode and times that can be preset into the timer. This article describes how to integrate it into an existing grinder chassis.



P64 PIC Programming Adapter. An adapter to program the new PIC microcontrollers. Includes a Raspberry Pi Pico and a 40pin ZIF and a check list to make sure your construction is as per the schematic. This adapter can with suitable PCBs program SMD packaged microcontrollers.



- P73 Serviceman's Log. GPS tracking collars, Simpson washing machine, Rental TV coin slot machine, Three coffee machines, TV a toaster and a sound bar.
- P80 Bench Power Supply MK2. The MK1 used a now not available transformer, the new model uses a more readily available unit. With internal thermal limiting as well as the usual 2A and 30V output capability a new PCB was produced. Shows the test results of the new supply and construction details. A digital display shows voltage and current.
- P90 Simple Voltage Inverter/Doubler. Using the one PCB and a LM555 this circuit can produce an inverted voltage supply or double the input voltage. Description of the operating modes and construction.
- P94 Vintage Radio – AWA 500M Superhet Mantel Radio. A four valve, mains powered unit in classic Bakelite case. Discusses to process of testing the performance of this simple set.



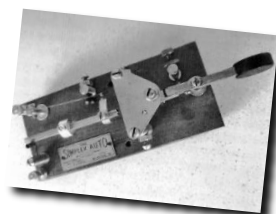
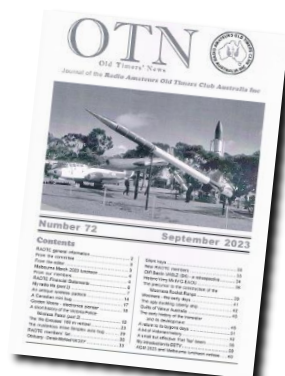
DIYODE September 2023 Review

- P8 Mega Hertz. Using underrated 433MHz modules. Taking an informative look at some underrated 433MHz radio modules and learn how to use them with digital projects. A couple of simple examples with code and schematics.
- P38 WHAT'S NEW Sept 2023. Can you ever have enough maker tools, kits, parts and gadgets? This month highlighting some of the new maker goodness from DIYODE advertisers. Weather Station, Batteries, Resistor Box, and Mecanum Wheels.
- P41 DIY RETRO GAME CONSOLE. Learn how a young entrepreneur combined his maker know-how, art skills, circuit board design skills, and open-source network to make a mini arcade game kit that teaches kids to solder and code. Not just the electronics but the mini retro cabinet.
- P50 A DC Electronic Load Part 3. Some upgrades and adding a rotary encoder and MOSFET modifications. Case construction and Vero/strip board assembly.
- P70 DIYblocks. A simple to build, 3D-Print based set of circuit building blocks you can make for beginners. Using 3D printed units, each with a different circuit component mounted on them, this concept uses banana plug type jumpers to connect and experiment with different circuit configurations.
- P81 Kids Basics. Automatic Lighthouse. A two-part series to explore some environmental sensors in a real-world setting, with some fun along the way. Some simple discrete circuitry and a card constructed lighthouse that anyone can make. This project has many options that can be added to enhance this basic idea.

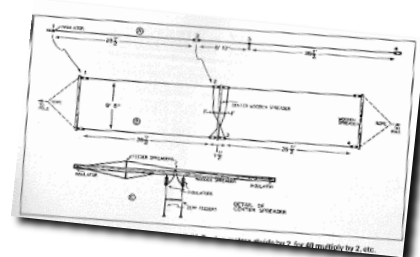


OTN September 2023. Journal of the Radio Amateurs Old Timers Club Australia Inc.

- P2 RAOTC General Information.
- P3 From Committee, From Editor.
- P4 Melbourne March 2023 luncheon.
- P4 From Members. March OTN Journal and Willis Island, Improved result from 20m vertical, Multiple licenses needed before K calls.
- P6 RATOC financial statements.
- P7 My Radio Life. Part 2. Winston Nickols VK7EM. Winston continues his memories of the 1960s and TV servicing, working at the ABC TV Hobart, Antarctica Wilkes Island and running a radio station in the cold and ice, the various pieces of radio equipment, building TV camera and SSTV exploits.
- P14 An antique wireless padlock. A unique brass padlock, made to order, to pay tribute to the founding of wireless in the maritime industry. The use of C.Q.D and the change to S.O.S for emergency calls.
- P16 A Canadian mini bug – made by John Merrick. Herman Willemssen VK2IXV shows and explains the history of bugs of different types made by John. B. Marrick, VE3AWA in brass and bronze, all handmade.
- P18 Gordon Moore – electronics pioneer, SK. Intel co-founder and Moore's Law author.
- P19 A short history of the Victoria Police Wireless Patrol, Part 2. Ian Meates continues the fascinating story of integration of wireless into VicPol and the various cars used to make up the mobile wireless patrol cars.
- P23 The "No Excuses" 160m vertical. Bill Salyers AJ8B describes the construction of a helically wound vertical for 160m with the help of ARRL's QST, an article by John Miller K6MM. Photographs of the stages of creation of the 7.5m antenna make a very interesting read.
- P29 The mysterious inline Simplex Auto bug No 1056. Herman Willemssen VK2IXV looks at the bug and its history. Over 5,000 were produced in eleven different models.
- P30 RAOTC Membership List
- P33 Obituary Derek McNeil VK3XY
- P33 Silent Keys
- P33 New RAOTC Members.
- P34 Cliff Bastin VK6LZ, SK. A retrospective
- P36 Historic Vimy Mk IV G-EAOU. Bill Roper OAM VK3BR. A look at the Vickers Vimy Mk IV located in its new display building at Adelaide Airport Terminal, a brief history, and images of the display.

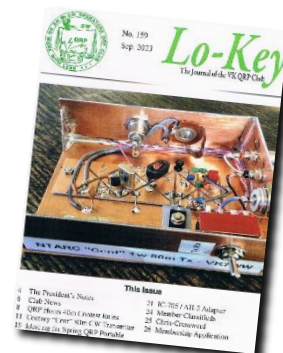


- P39 The precursor to the construction of the Woomera Rocket Range. Col Harvey VK1AU SK, presented by Bill Roper OAM VK3BR. A fascinating story of the range and the reason for its beginnings.
- P41 Woomera – the early days. More about the range but this time from David Robinson VK5N, SK. The Long Range Weapons Research Establishment. The radio equipment and anecdotes from the people who experienced them.
- P42 The ugly duckling Liberty ship. Bill Roper OAM VK3BR. A look at the Liberty ships manufactured during WW2 to supply Britain with goods across the Atlantic. The aim was to build them faster than the U-Boats could sink them and keep the essential supply line going.
- P45 Quilts of Valour Australia. Bill Roper OAM VK3BR. Tells us about the organization that has so far supplied around 4,000 quilts to veterans who are and have been of service to Australia.
- P48 The early history of the transistor and its development. Andrew Walton VK3CAH. The intriguing history of the transistor and the advances made to produce the device we know today.
- P51 A return to its bygone days. Herman Willemsen VK2IXV. A look at a Simplex Auto bug bought on eBay and its restoration.
- P52 A bit of Victorian history. John Adcock VK3ACA, SK. An article that originated in WIAAR December 1980, some early history of the WIA as the Amateur Wireless Society of Victoria.
- P56 A small but effective “Flat Top” beam. Bill Roper OAM VK3BR. A look at a design from March 1937 edition of RADIO magazine. A 20m “beam” is less than 60 feet long.
- P58 My introduction to SSTV. Barrie Burns VK6ADI. Barrie’s story of ROBOT SSTV kit to MMSSTV and work with WA SSTV Group.



Lo-Key No. 159 September 2023 Review

- P2 Key Roles
- P3 Lo-Tone. Terry VK2KTJ, Editors Notes
- P4 The President's Notes. Trevor VK5ATQ, Contest, Propagation, Magazines, Operating
- P7 Club News. New Members, 10-year, 20 Year and 30 Year Club.
- P8 QRP Hours 40m Contest Rules, Andrew VK1DA/VK2DA
- P12 The Century “Cent” (1 Watt) 80M CW Transmitter Mk 1. Nic VK7WW
- P19 Your Ideal Rig for Spring QRP Portable. Peter VK3YE.
- P21 Icom IC-705/AH-3 Adapter. Terry VK2KTJ
- P24 Member Classifieds. Wanted Manual ATU/Aerial Coupler. Re-Homing G-QRP SPRAT issues.
- P25 Chris-Crossword.
- Back Page. First ever portable attempt. Stephen ZL3ABX



Back Copies of BARG inc. Newsletters

There are available on the BARG website scanned copies of old BARG Newsletters.
<https://www.barg.org.au/>

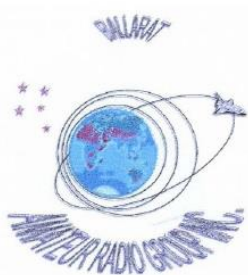
Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.

Great job....



Note: No General Meeting for September 2023

The next meeting is
Annual General Meeting. Saturday 28th of
October 2023. 11:00am



B.A.R.G. Inc. NOMINATION FORM

Ballarat Amateur Radio Group—Inc # 6953T

DATE: _____

I wish to Nominate _____ CALL: _____

For the position of _____ of BARG Inc.

Nominated by: _____ and _____

Nomination accepted by: (Nominee) _____